# ARTICLE 8.15 NOISE CONTROL

## **SECTION 8.15.1 SHORT TITLE**

This By-law may be cited as the "Noise Control By-law of The Town of Brookline".

# SECTION 8.15.2 DECLARATION OF FINDINGS, POLICY AND SCOPE

(a) Whereas excessive Noise is a serious hazard to the public health and welfare, safety, and the quality of life; and whereas a substantial body of science and technology exists by which excessive Noise may be substantially abated; and whereas the people have a right to and should be ensured an environment free from excessive Noise that may jeopardize their health or welfare or safety or degrade the quality of life; now, therefore, it is the policy of the Town of Brookline to prevent excessive Noise which may jeopardize the health and welfare or safety of its citizens or degrade the quality of life.

### (b) Scope.

This By-law shall apply to the control of all sound originating within the limits of the Town of Brookline.

- 1. Provisions in this By-law shall not apply to the emission of sound for the purpose of alerting persons to the existence of an emergency or to the emission of sound in the performance of emergency work or in training exercises related to emergency activities, and in the performance of public safety activities.
- 2. Emergency generators used for power outages or testing are exempt from this By-law. However, generator testing must be done during daylight hours.
- 3. Noncommercial public speaking and public assembly activities as guaranteed by state and federal constitutions shall be exempt from the operation of this By-law.

#### SECTION 8.15.3 DEFINITIONS

(a) Ambient or Background Noise Level: Is the term used to describe the Noise measured in the absence of the Noise under investigation. It shall be calculated using the average lowest sound pressure level measured over a period of not less than five minutes using a sound pressure level meter set for slow response on the "A" weighting filter in a specific area of the town under investigation.

- (b) Construction and Demolition: Any site preparation, assembly erection, substantial repair, alteration, destruction or similar action for public or private rights-of-way, structures, utilities, or similar property.
- (c) Day: 7:01 AM 10:59 PM and Night: 11:00 PM 7:00 AM
- (d) Electronic Devices: Any radio, tape recorder, television, CD, stereo, public address system, loud speaker, amplified musical instrument including a hand held device, and any other electronic noise producing equipment.

Exemption: two-way communication radios used for emergency, safety and public works requirements.

- (e) Emergencies: Any occurrence or set of circumstances necessary to restore, preserve, protect or save lives or property from imminent danger of loss or harm.
- (f) Decibels (dB): The decibel is used to measure sound pressure level. The dB is a logarithmic unit used to describe a ratio of sound pressure, loudness, power, voltage and several other things.
- (g) Decibels "A" weighted scale (dBA): The most widely used sound level filter is the "A" weighted scale. This filter simulates the average human hearing profile. Using the "A" weighted scale, the meter is less sensitive to very low and high frequencies.
- (h) Decibels "C" weighted scale (dBC): The "C" filter uses little filtering and has nearly a flat frequency response (equal magnitude of frequencies) throughout the audio range.
- (i) Fixed Plant Equipment: Any equipment such as generators, air conditioners, compressors, engines, pumps, refrigeration units, fans, boilers, heat pumps and similar equipment.
- (j) Frequency response: Is the measure of any system's response at the output to a signal of varying frequency but constant amplitude at its input. The theoretical frequency range for humans is 20 20,000 cycles/second (Hz).
- (k) Hertz (Hz): Cycles per Second (cps).
- (l) Loudness: A rise of 10dB in sound pressure level corresponds approximately to doubling of subjective loudness. That is, a sound of 65dB is twice as loud as a sound of 55dB.
- (m) Leaf blowers: Any portable machine used to blow leaves, dirt and other debris off lawns, sidewalks, driveways, and other horizontal surfaces.

- (n) Noise: Sound which a listener does not wish to hear and is under investigation that may exceed the Noise requirements located in this Noise By-law.
- (o) Noise Injury: Any sound that:
  - (1) endangers the safety of, or could cause injury to the health of humans; or
  - (2) endangers or injures personal or real property.
- (p) Noise Level: The Sound Pressure Level measurements shall be made with a Type I or II sound level meter as specified under American National Standard Institute (ANSI) standards.
- (q) Noise Pollution: If a Noise source increases Noise levels 10 dBA or more above the Background Noise Level, it shall be judged that a condition of Noise Pollution exists. However, if the Noise source is judged by ear to have a tonal sound, an increase of 5 dBA above Background Noise Level is sufficient to cause Noise Pollution.
- (r) Person: Any individual, company, occupant, real property owner, or agent in control of real property.
- (t) Sound: A fluctuation of air pressure which is propagated as a wave through air.
- (u) Sound Level Meter: An instrument meeting Type I or Type II American National Standard Institute (ANSI) standards, consisting of a microphone, amplifier, filters, and indicating device, and designed to measure sound pressure levels accurately according to acceptable engineering practices.
- (v) Sound Pressure Level: The level of Noise, normally expressed in decibels, as measured by a sound level meter.
- (w) Tonal Sound: Any sound that is judged by a listener to have the characteristics of a pure tone, whine, hum or buzz.

#### SECTION 8.15.3A MOTOR VEHICLE DEFINITIONS

- (a) Gross Vehicle Weight Rating (GVWR): The value specified by the manufacturer as the recommended maximum loaded weight of a single motor vehicle. In cases where trailers and tractors are separable, the gross combination weight rating, (GCWR), which is the value specified by the manufacturer as the recommended maximum loaded weight of the combination vehicle, shall be used.
- (b) Motorcycle: Any unenclosed motor vehicle having two or three wheels in contact with the ground, including, but not limited to, motor scooters and minibikes.

(c) Motor Vehicle: Any vehicle which is propelled or drawn on land by a motor, such as, but not limited to, passenger cars, trucks, truck-trailers, semi-trailers, campers, go-carts, snowmobiles, dune buggies, or racing vehicles, but not including motorcycles.

#### SECTION 8.15.4 SOUND LEVEL EXAMPLES

The following are examples of approximate decibel readings of every day sounds:

0dBA	The faintest sound we can hear		
30dBA	A typical library		
45dBA	Typical office space		
55dBA	Background Noise of a typical urban environment at night		
65dBA	Background Noise of a typical urban environment during the day		
70dBA	The sound of a car passing on the street		
72dBA	The sound of two people speaking 4' apart		
80dBA	Loud music played at home		
90dBA	The sound of a truck passing on the street		
100dBA	The sound of a rock band		
115dBA	Limit of sound permitted in industry by OSHA		
120dBA	Deafening		
130dBA	Threshold of pain		
140dBA	Rifle being fired at 3'		
150dBA	Jet engine at a distance of 100'		
194dBA	Theoretical limit for a sound wave at one atmosphere		
	environmental pressure		

#### SECTION 8.15.5 DUTIES AND RESPONSIBLITIES OF TOWN DEPARTMENTS

#### (a) Departmental Actions

All town departments and agencies shall, to the fullest extent consistent with other laws, carry out their programs in such a manner as to further the policy of this By-law.

# (b) Departmental Compliance with Other Laws

All town departments and agencies shall comply with federal and state laws and regulations and the provisions and intent of this By-law respecting the control and abatement of Noise to the same extent that any person is subject to such laws and regulations.

- (c) The Department of Public Works is exempt for Day and Night time operations for routine maintenance including but not limited to snow removal, street cleaning, litter control, and graffiti removal, etc. However, the DPW shall make every effort to reduce Noise in residential areas, particularly at night.
- (d) Prior to purchasing new equipment, the Department of Public Works must consider equipment with the lowest Decibel rating for the performance standard required.

(e) Any proposed new or proposed upgrade for a park or recreation facility must incorporate appropriate and feasible Noise abatement measures during the design review process.

# SECTION 8.15.6 PROHIBITIONS AND MEASUREMENT OF NOISE EMISSIONS

#### (a) Use Restrictions

1. The following devices shall not be operated except between the hours of 8 (eight) A.M. to 8(eight) P.M. Monday through Friday, and from 9 (nine) A.M. to 8(eight) P.M. on Saturdays, Sundays and holidays:

All electric motor and internal combustion engine devices employed in yard and garden maintenance and repair.

Turf maintenance equipment employed in the maintenance of golf courses, snow blowers and snow removal equipment are exempt from this section.

2. The following devices shall not be operated except between the hours of 7(seven) A.M. to 7(seven) P.M. Monday through Friday, and from 8:30(eight-thirty) A.M. to 6(six) P.M. on Saturdays, Sundays and holidays:

All devices employed in construction or demolition, subject to the maximum Noise Levels specified in Section 8.15.6b and 8.15.6c.

(b) Vehicular Sources: Maximum Noise Levels Measurements shall be made at a distance of 50 (fifty) feet from the closest point of pass-by of a Noise source or 50(fifty) feet from a stationary vehicle.

# MAXIMUM NOISE LEVEL dBA

Vehicle Class	Stationary Run-up or Speed Limit 35 mph or less	Speed Limit 35-45 mph
All vehicles over 10,000 lbs. GVWR or GCWR	83	87
All motorcycles	79	79
Automobiles and light trucks	75	75

# (c) Construction and Maintenance Equipment:

Maximum Noise Levels

Noise measurements shall be made at 50 (fifty) feet from the source. The following Noise Levels shall not be exceeded:

Construction	Maximum Noise	Maximur Maintenance Noise
<u>Item</u>	<u>Level dBA</u>	<u>Item</u> <u>Level dB</u>
Backhoe, bulldozer concrete mixer dumptruck, loader, roller, scraper, pneumatic tools,paver	90	Wood Chipper 90 running concrete mixer,leaf vacuum
Air compressor	85	Chainsaw, 83 solid waste compactor, tractor (full-size)
Generator	80	Home tractor, 80 snow blower
		Lawn mower, 73 trimmer,
Electric drills, power tools, sanders, saws, etc.	75	Leafblowers 6

## (c) Fixed Plant Equipment

Any person shall operate such equipment in a manner not to exceed 10 dBA over the Background Noise and not greater than 5 dBA of Tonal sound over the Background Noise. However, if the fixed equipment is operated during night time hours, the night time Sound Pressure Level of the Fixed Plant Equipment must not exceed the average daytime Background Noise to compensate for night time operations, which is assumed to be 10dBA below daytime Background Noise. See Definitions Section 8.15.3(c).

Noise measurements shall be made at the boundary of the property in which the offending source is located, or at the boundary line of the complainant if the complainant is not a direct abutter.

#### (e) Electronic Devices and Musical Instruments

No person owning, leasing or controlling the operation of any electronic device shall willfully or negligently permit the establishment or condition of Noise Injury or Noise Pollution.

In public spaces, the existence of Noise Injury or Noise Pollution is to be judged to occur at any location a passerby might reasonably occupy. When the offending Noise source is located on private property, Noise Injury or Noise Pollution judgments shall be made at the property line within which the offending source is located.

Any and all Decibel Levels of sound caused by playing non-electrified musical instruments between 9 A.M. and 9 P.M. shall be exempt with exception of drums.

#### (f) Leaf Blowers

No person shall operate any portable Leaf Blower(s) which does not bear an affixed manufacturer's label or a label from the town indicating the model number of the Leaf Blower(s) and designating a Noise Level not in excess of sixty-seven(67)dBA when measured from a distance of fifty feet utilizing American National Standard Institute (ANSI) methodology. Any Leaf Blower(s) which bears such a manufacturer's label or town's label shall be presumed to comply with the approved ANSI Noise Level limit under this By-law. However, any Leaf Blowers must be operated as per the operating instructions provided by the manufacturer. Any modifications to the equipment or label are prohibited. However, any portable Leaf Blower(s) that have been modified or damaged, determined visually by anyone who has enforcement authority for this By-law, may be required to have the unit tested by the town as provided for in this section, even if the unit has an affixed manufacturer's ANSI or town label. Any portable Leaf Blower(s) must comply with the labeling provisions of this By-law by January 1, 2010. However, the owner's of any Leaf Blower(s) operating after January 1, 2010 without a manufacturer's ANSI label on the equipment, may obtain a label from the town by bringing the equipment to the town's municipal vehicle service center or such other facility designated by the Town for testing. The testing will be provided by the town's designated person for a nominal fee and by appointment only. Testing will be provided only between the months of May and October. If the equipment passes, a town label will be affixed to the equipment indicating Decibel Level.

Whether the equipment passes or not, the testing fee is non-refundable. Leaf blowers may be operated only during the hours specified in Section 8.15.6(a)(1). In the event that the label has been destroyed, the Town may replace the label after verifying the specifications listed in the owner's manual that it meets the requirements of this By-law.

### (g) Animals

No person owning, keeping or controlling any animal shall willfully, negligently or through failure to provide necessary equipment or facilities or to take necessary precautions, permit the existence of Noise Pollution or Noise Injury.

#### (h) Additional Noise Sources

No person shall emit noise so as to cause a condition of Noise Pollution or Noise Injury.

#### (i) Alternative Measurement Procedures

If it is not possible to make a good Sound Pressure Level measurement at the distance as defined for specific equipment throughout Article 8.15, measurement may be made at an alternate distance and the level at the specified distance subsequently calculated. Calculations shall be made in accordance with established engineering procedures.

## (j) Noise Level Exclusions

Any equipment that is used to satisfy local, state, federal health, welfare, environmental or safety codes shall be exempt from limitations for hours of operation (See Section 8.15.6(a)), except to the extent otherwise determined by the Board of Selectman. The following equipment shall also be exempt from Section 8.15.6(a) if necessary for emergency work performed by the Department of Public Works:

jack hammers
pavement breakers
pile drivers
rock drills
or such other equipment as the DPW deems necessary,

providing that effective Noise barriers are used to shield nearby areas from excessive Noise.

#### (k) Motor Vehicle Alarms

The sounding of any horn or signaling device as a part of a burglar, fire or alarm system (alarm) for any motor vehicle, unless such alarm is automatically terminated within ten minutes of activation and is not sounded again at all within the next sixty minutes, is prohibited. Any motor vehicle located on a public or private way or on public or private property whose alarm has been or continues to sound in excess of ten minutes in any sixty minute cycle is hereby deemed to be a public nuisance subject to immediate abatement. Any police officer who observes that the alarm has or is sounding in excess of ten minutes in any sixty minute cycle, who, after making a reasonable effort, is unable to contact the owner of such motor vehicle or, after contact, such owner fails or refuses to shut-off or silence the alarm or authorize the police officer to have the alarm shut-off or

silenced, may abate the nuisance caused by the alarm by entering the vehicle to shut off or disconnect the power source of the alarm, by authorizing a member of the fire department or a tow company employee to enter such vehicle to shut off or disconnect the power source of the alarm and, if such efforts are unsuccessful, such officer is authorized to abate the nuisance by arranging for a tow company to tow the motor vehicle to an approved storage area or other place of safety. If a motor vehicle's alarm is shut off or disconnected from its power source and a police officer determines that the motor vehicle is not safe in its then location and condition, the police officer may arrange for a tow company to tow the motor vehicle to an approved storage area or other place of safety. The registered owner of the motor vehicle shall be responsible for all reasonable costs, charges and expenses incurred for the shutting-off or silencing of the alarm and all costs of the removal and storage of the motor vehicle. The provisions of Article 10.1 or Section 8.15.10 shall not apply to this paragraph (k).

#### (1) Tonal Sound Corrections

When a Tonal Sound is emitted by a Noise source, the limit on maximum Noise levels shall be 5 dB lower than specified.

#### SECTION 8.15.7 PERMITS FOR EXEMPTIONS FROM THIS BY-LAW

- (a) The Board of Selectmen, or designee, may give a special permit
- (i) for any activity otherwise forbidden by the provisions of this By-law,
- (ii) for an extension of time to comply with the provisions of this By-law and any abatement orders issued pursuant to it, and
- (iii) when it can be demonstrated that bringing a source of Noise into compliance with the provisions of this By-law would create an undue hardship on a person or the community. A person seeking such a permit should make a written application to the Board of Selectmen, or designee. The Town will make all reasonable efforts to notify all direct abutters prior to the date of the Selectmen's meeting at which the issuance of a permit will be heard.
- (b) The applications required by (a) shall be on appropriate forms available at the office of the Selectman. The Board of Selectmen, or designee, may issue guidelines defining the procedures to be followed in applying for a special permit. The following criteria and conditions shall be considered:
- (1) the cost of compliance will not cause the applicant excessive financial hardship;
- (2) additional Noise will not have an excessive impact on neighboring citizens.

- (3) the permit may require portable acoustic barriers during Night.
- (4) the guidelines shall include reasonable deadlines for compliance or extension of non-compliance.
- (5) the number of days a person seeking a special permit shall have to make written application after receiving notification from the Town that (s)he is in violation of the provisions of this By-law.
- (b) If the Board of Selectmen, or designee, finds that sufficient controversy exists regarding the application, a public hearing may be held. A person who claims that any special permit granted under (a) would have adverse effects may file a statement with the Board of Selectmen, or designee, to support this claim.

# SECTION 8.15.8 HEARINGS ON APPLICATION FOR PERMITS FOR EXEMPTIONS

Resolution of controversy shall be based upon the information supplied by both sides in support of their individual claims and shall be in accordance with the procedures defined in the appropriate guidelines issued by the Board of Selectmen, or designee.

#### SECTION 8.15.9 APPEALS

### [Disapproved and deleted by the Attorney General on May 14, 2009.]

## SECTION 8.15.10 PENALTIES

- (a) Any person who violates any provision of this By-law shall be subject to a fine pursuant to Article 10.3 (Non-Criminal Disposition) in accordance with GL c.40. Section 21d or they may be guilty of a misdemeanor in accordance with Article 10.1 of the Town By-law and each violation shall be subject to fines according to the following schedule:
  - (1) \$50.00 for first offense;
  - (2) \$100.00 for the second offense:
  - (3) \$200.00 for the third offense;
  - (4) \$200.00 for successive violations;

plus (5) court costs for any enforcement action.

Each day of a continuing violation shall be considered a separate violation. Fines that remain unpaid after 30 days shall accrue interest at the statutory rate of interest.

(b) If a person in violation of the Noise Control By-law at a real property is an occupant but not the record owner of the real property, the Police, Health, or Building Departments

may notify the owner of record of the real property of the violation. If a fine is issued in connection with excessive Noise at real property to someone other than the record owner of the property then the record owner of that property shall be notified. If there are any successive violations at least 14 days after the notification of the record owner but within a one-year period, then the record owner of the property shall also be subject to the fine schedule delineated in Section (a).

## (c) [Disapproved and deleted by the Attorney General on May 14, 2009.]

(d) The Health, Building, Police and Public Works Departments shall have enforcement authority for the By-law. To report a violation, contact the appropriate department.

#### SECTION 8.15.11 SEVERABILITY

If any provisions of this article or the application of such provision to any person or circumstances shall be held invalid, the validity of the remainder of this article and the applicability of such provision to other persons or circumstances shall not be affected thereby.